

What Are the Basic Needs for Public Health in California?

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TO meet the need for an organization to promote and safeguard public health in California, the State Legislature more than three-quarters of a century ago established the California State Board of Public Health. Thomas M. Logan, who had been president of the California Medical Association, was the first permanent secretary of this board, which numbered among its members such distinguished men as Henry Gibbons, J. F. Montgomery of Sacramento, and L. C. Lane of San Francisco.

Created at the beginning of the bacteriological era, the board was concerned with the many causes of death such as consumption, which was then the outstanding killer, other diseases of the lungs, diseases of the stomach and bowels, diphtheria, scarlatina, and "typho-malarial" fevers. The board recognized the value of collecting vital data and interpreting it as one of the basic essentials of good public health. Because it was difficult for the secretary to secure good data from official records, he went to great effort to get statistics from lodges which insured their members, from local boards of health, from practicing physicians, and from every other accessible source. The data were compiled in carefully prepared charts.

Indicative of the importance which was attached to vital data at that time is the following quotation from Doctor Logan's annual report of 1870: "Faithfully collected and skillfully managed, these statistics furnish accurate knowledge of the most important facts of each citizen, and also the data upon which governments and communities, as well as individuals, may base their action. . . . Life, health, and property, all that man holds dear, are thus we see involved in these statistics."¹

Today, it is just as important to have accurate birth and death data, morbidity data, including reports of rheumatic heart disease, crippled children, cancer, or any other diseases where the collection of vital data could be of assistance to any part of the medical profession in solving the problem of disease, reducing its occurrence and prolonging life. Accurate, vital data is necessary to guide public health activities and to show the places where emphasis must be placed in controlling particular diseases. Birth and death records are unusually complete in most parts of California. It is hoped that as all physicians see more value in morbidity reporting, it too will be greatly improved in many areas.

Thomas Logan's laboratory differed greatly from our modern public health laboratory, for it consisted for the most part of instruments for predicting the weather. Since he began his term of office just

before the time that bacteriology became a science, it is not surprising that he thought that the weather greatly influenced the spread of communicable diseases. Indeed, much is still being written about the influence of weather on disease. Quoting from his report: "During the prevalence of the epidemic, the most remarkable fact in regard to this region [Santa Barbara] is the seeming impossibility for epidemics to visit it. The smallpox has ravaged the whole country three or four times since 1843. It has been singularly virulent in San Luis Obispo, the first town north of us, and also in Los Angeles, which lies in the next county south. During the prevalence of the epidemic, persons have come from these neighboring towns with the seeds of the disease, and have died in Santa Barbara within a few days of arriving, but some antiseptic property and the climate has prevented the contagion, and it has never spread. Scarlatina and diphtheria are unknown here. . . . The climate seems sufficient to cure the malady. During a residence of 20 years, I have only seen one case of membranous croup, and heard of two others."

GOOD LABORATORIES ESSENTIAL

Although meteorology has little place in the ordinary public health laboratory of today, the scientific basis for the determination of the causative agent of disease was begun in health departments at that day. In the light of knowledge of bacteria, viruses, and other disease-causing agents, the greatest need for any health department is a well equipped and staffed public health laboratory. No health officer would attempt to provide a pure milk supply or water supply or to control the communicable diseases without public health laboratory facilities. Most of the smaller public health laboratories find that routine laboratory procedures are adequate and that research procedures should be turned over to a state laboratory which is well prepared to carry out such work as laboratory studies in the field of encephalitis and other related virus diseases. In order to control syphilis, laboratory procedures are so essential that health departments have furnished private physicians and everyone concerned in the problem of diagnosing this disease with laboratory service whenever the patient is unable to pay a private laboratory fee.

The problem of maternal and child health was not overlooked by this first Board of Health in California. In a chapter entitled "Female Hygiene" in which an attempt had been made to point out the unnecessary illness following childbirth, the report says: "Towards obviating the perpetuity of these evils, which have existed from all time and in all places, and which strike at the vitals of society, we believe that it is our plain duty to disseminate such hygienic counsel, and if they may not have the power

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of always preventing the misfortunes to which female life is subject, will certainly weaken the morbid influences which produce them." The State Board of Health was so concerned with maternal and child health that it brought Doctor H. R. Storer of Boston to California for two lectures on female hygiene in order to prevent the terrific maternal and infant mortality which existed in that day, and to teach the medical profession something about gynecology. In his lecture he put constant emphasis on the prevention of disease.

Today, although there is a better understanding of ways to improve maternal and child health, the need for protecting the maternity patient from illness and death, and the need for giving the baby a start in life which will make him a healthy, well citizen remains a primary interest of the state, as it was in 1870.

With the work of Sir Edwin Chadwick, in England, in the early part of the 19th Century, and of Lemuel Shattuck in the United States at about the same time, the need for a pure water supply, adequate drainage, and, in general, the prevention of disease through sanitation, was brought to the forefront. Shattuck published his writings in the *New York Journal of Medicine* in 1851, and it was called "an epitome of Sanitary Science." Twenty years after the publication of this report, the secretary of the Massachusetts Board of Health based his recommendations for the development of public health legislation in that state on Shattuck's writings. Likewise, the California State Board of Health, which was established a few months after the Massachusetts Board of Health, based its health laws on this same work. To quote: "Massachusetts has been the first state to become awakened to the danger of the situation, and the 'Memorial of the Boston Sanitary Association' to the Legislature, in 1861, and from which I have freely drawn in preparing these remarks, has been answered by the institution of a State Board of Health, whose first annual report I now present for your consideration: You will perceive that the late action of our state has been based on that of Massachusetts, and we may, with reason, congratulate ourselves upon California being the first state to follow in the footsteps of the most enlightened Commonwealth in America." Empirical facts seemed to show that environmental sanitation was an important factor in the health of the people of California. Bacteriology later proved the reasons for these observations which had been made earlier by these men of science. However, like many another action based on half-truths, sanitation was sometimes carried to extremes, as evidenced by the fact that the streets of Philadelphia were thoroughly washed and scrubbed in order to stop an epidemic of yellow fever. Each year, environmental sanitation procedures should be reviewed in the light of newer discoveries and newer knowledge in the field of communicable disease and the spread of disease.

New problems are presented each day in environmental sanitation: The discovery of new insect vectors in the spread of encephalitis suggests new fields

for attack; experience may dictate the abandonment of a procedure found to be ineffective. Constantly health departments must evaluate their procedures in the field of environmental sanitation to determine that which is basic and that which is either the responsibility of other divisions of government or completely unnecessary. Certainly well planned, well directed, and well scrutinized environmental sanitation is a basic function for every health department.

Probably the keystone in any health department is the control of communicable disease. For many years in California, the public health organizations have made every effort to control childhood diseases, adult diseases such as tuberculosis, venereal diseases, typhoid fever, dysentery, malaria and every other communicable disease. Although the first California State Board of Health did not have the contributions of bacteriology and virology which are used today, nevertheless, it recognized these sciences as essential parts of Public Health. Isolation and quarantine as well as fumigation, were practiced extensively, while today we have in many instances been able to substitute vaccination, immunization and chemotherapy for these older procedures. Actual treatment today in the field of tuberculosis and venereal diseases has been instrumental in preventing their spread. While many control measures for communicable diseases are known, much research still needs to be done. Pandemics of influenza still may sweep the world: the common cold still produces more days of time lost than any other communicable disease in the United States; venereal diseases attack an increasing number of the population. The control of communicable disease is still one of our basic Public Health needs.

One of the first duties at the conclusion of a year's work by the California State Board of Health was the preparation of an annual report which was designed to be "A readable and convenient size for public use"—a report of 203 pages, which cost a considerable share of the total Health Department budget to publish. This publication was not the first effort of the Board of Health in health education, for the board had previously held lectures for the medical profession, had conducted a great deal of correspondence with various lodges and fraternities in California, had implemented many other community groups to assist in prevention of disease. The whole tone of this first report is one of education, rather than one of establishing laws, even though it probably would not have been recognized as public health education in the meaning of the term as it is accepted today. Thus, basically, public health needs have remained essentially the same for 78 years, but in the light of research and the changed concepts of the cause of disease, the interpretation of basic Public Health has changed. To environmental sanitation, some health departments have added industrial hygiene. Industry has brought with it many problems as well as many benefits to communities. The effect each industry has upon the lives of the people who work in it, as well as the effect on persons who live near it, must be recognized. In the

prevention of disease and illness, dental and mental health play an important part in urban population groups today, even though these fields were recognized only to a small degree in 1870.

Although many parts of California have realized the need for public health services, they have not been able to finance these basic needs. Inadequate revenue, overwhelming problems of public health, and many other factors have interfered with the adequate fulfillment of these basic needs. Public health has become a statewide problem as well as a local one with the development of means of travel by which people can travel between widely separated communities within a few hours. With the widening of scope, it has become necessary to use more state and federal funds in local health departments to solve the basic needs for Public Health in the state and the nation.

Although supplying the basic needs for public health requires well trained personnel, low salaries have left many health departments, which otherwise would meet basic needs, understaffed. Even if salaries were adequate, a large number of persons would have to be recruited and trained.

Much has been done to accomplish the basic needs for public health in many areas of the state, but the continued active support of the medical profession, which originated the California State Department of Public Health as well as many of the local boards of public health in California, is needed. It will

continue to be through the leadership of organized medicine in this state that public health will flourish, that citizens of this state will not die unnecessarily or suffer unnecessary illnesses.

SUMMARY

Basic Public Health needs, which were recognized by the founders of Public Health in California, have developed and expanded. Today they are: (1) Complete registration of births, deaths, and morbidity, as well as analysis and interpretation of this data; (2) public health laboratory facilities to assist and guide the local health department with its analyses and reports; (3) adequate environmental sanitation, with recognition and evaluation of those conditions which are merely nuisances, yet are the responsibilities of public health departments; (4) the protection of maternal and child health; (5) health education, which has become as vital as laws and ordinances in the protection of public health, especially in securing community action to achieve the desired results in all fields of public health; (6) control of communicable diseases through prevention and treatment.

All the basic needs for public health can only be achieved when adequate funds, adequately trained and adequately paid personnel are available.

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REFERENCE

1. First Report, Board of Health of California, 1870-1871.

